

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/JP2005/020050

**A. CLASSIFICATION OF SUBJECT MATTER**  
G01N21/35

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
GOIN GOIJ

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal , PAJ, INSPEC, BIOSIS

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/068018 A1 (PEPPER DAVID M ET AL) 6 June 2002 (2002-06-06) figures 1,4,5,7 -----	1-9
X	US 2004/058339 A1 (NAGEL MICHAEL ET AL) 25 March 2004 (2004-03-25) figures 4-6 -----	1-9
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

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- 'E' earlier document but published on or after the international filing date
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- 'O' document referring to an oral disclosure, use, exhibition or other means
- 'P' document published prior to the international filing date but later than the priority date claimed

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\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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\*&\* document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
15 December 2005	22/12/2005
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV RIJSWIJK Tel. (+31-70) 340-2040, Tx. 31651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  Mason, W

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C(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>NAGEL M ET AL: "Three-dimensional polymer/metal -based resonators for THz-biosensing"          INFRARED AND MILLIMETER WAVES, 2004 AND 12TH INTERNATIONAL CONFERENCE ON TERAHERTZ ELECTRONICS, 2004. CONFERENCE DIGEST OF THE 2004 JOINT 29TH INTERNATIONAL CONFERENCE ON KARLSRUHE, GERMANY SEPT. 27 - OCT. 1, 2004, PISCATAWAY, NJ, USA, IEEE, 27 September 2004 (2004-09-27), pages 819-820, XP010795242          ISBN: 0-7803-8490-3          figure 1</p> <p>-----</p>	1-9
X	<p>PATENT ABSTRACTS OF JAPAN          vol . 2000, no. 20,          10 July 2001 (2001-07-10)          &amp; JP 2001 074647 A (SUZUKI MOTOR CORP),          23 March 2001 (2001-03-23)          abstract; figure 7</p> <p>-----</p>	1-9
A	<p>DE 102 57 225 B3 (TECHNISCHE UNIVERSITAET BRAUNSCHWEIG CAROLO-WILHELMINA)          8 April 2004 (2004-04-08)          figures 1-3</p> <p>-----</p>	1-9
A	<p>US 6 573 737 B1 (LYON STEPHEN A ET AL)          3 June 2003 (2003-06-03)          figures 5,7,14</p> <p>-----</p>	1-9
A	<p>TOROSYAN G ET AL: "Application of narrowband tunable THz-radiation for biomedical sensing"          LEOS 2002. 15TH. ANNUAL MEETING OF THE IEEE LASERS &amp; ELECTRO-OPTICS SOCIETY.          GLASGOW, SCOTLAND, NOV. 11 - 12, 2002,          ANNUAL MEETING OF THE IEEE LASERS AND ELECTRO-OPTICS SOCIETY, NEW YORK, NY : IEEE, US,          vol. VOL. 1 OF 2 ,          11 November 2002 (2002-11-11), pages 343-344, XP010620552          ISBN: 0-7803-7500-9          figure 1</p> <p>-----</p> <p>-/-</p>	1-9

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category <sup>a</sup>	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>NAGEL M ET AL: "INTEGRATED PLANAR TERAHERTZ RESONATORS FOR FEMTOMOLAR SENSITIVITY LABEL-FREE DETECTION DNA HYBRIDIZATION"</p> <p>APPLIED OPTICS, OSA, OPTICAL SOCIETY OF AMERICA, WASHINGTON, DC, US, vol . 41, no. 10, 1 April 2002 (2002-04-01), pages 2074-2078, XP001102355 ISSN: 0003-6935 figure 1</p> <p>-----</p>	1-9
A	<p>NAGEL M ET AL: "A functionalized THz sensor for marker-free DNA analysis"</p> <p>PHYSICS IN MEDICINE AND BIOLOGY IOP PUBLISHING UK, vol. 48, no. 22, 21 November 2003 (2003-11-21), pages 3625-3636, XP009058954 ISSN: 0031-9155 figures 1,2</p> <p>-----</p>	1-9
A	<p>STEWING F ET AL: "A new class of improved-efficiency THz filters for on-chip detection of biomaterials"</p> <p>MICROWAVE AND OPTICAL TECHNOLOGY LETTERS WILEY USA, vol . 41, no. 2, 20 April 2004 (2004-04-20), pages 79-82, XP009058933 ISSN: 0895-2477 figures 1,2,5</p> <p>-----</p>	1-9
A	<p>BARAS T ET AL: "On-chip THz detection of biomaterials: A numerical study."</p> <p>JOURNAL OF BIOLOGICAL PHYSICS, vol. 29, no. 2-3, 2003, pages 187-194, XP009058927 ISSN: 0092-0606 figures 1,4</p> <p>-----</p>	1-9

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
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US 2004058339	A1	25-03-2004	AU 7955501 A WO 0204928 A1 DE 10192655 D2 EP 1301774 A1		21-01-2002 17-01-2002 12-06-2003 16-04-2003
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DE 10257225	B3	08-04-2004	NONE		
US 6573737	B1	03-06-2003	NONE		